COMMENTS

The enclosed is responsive to the Examiner's Office Action mailed on January 20, 2004.

At the time the Examiner mailed the Office Action claims 1-24 were pending. By way of the

present response the Applicant has amended claims 1, 8 and 17 and cancelled claim 2.

As such, claims 1 and 3-24 are now pending. The Applicant respectfully requests

reconsideration of the present application and the allowance of claims 1 and 3-24.

Drawing Objections

The drawings are objected to because Figure 1 referred to as conventional in the

specification on page 1, para. 2 should be designated by a legend such as –Prior Art—because

only that which is old is illustrated.

The Applicant has amended Figure 1 to include the legend "Prior Art". A replacement

sheet for Figure 1 is attached with this response.

Rejections Under 35 U.S.C. § 102(e)

Claims 1-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent

No. 6,496,540, of Widmer ("Widmer"). The Examiner stated that

> Widmer discloses skew adjustment algorithm in "Transformation of parallel interface
> into coded format with preservation of baud-rate" wherein "the step of adjusting
> transmission delay by a dynamically adjustable delay in each transmission link may be
> included. The step of retiming coded data blocks on each link with a dedicated adjustable
> clock, and the step of eliminating skew among the links by providing a second retiming
> of data transferred on the links at a rate less than the predetermined baud rate with a clock
> system shared by all links may be included. The steps of receiving transmitted coded
> data blocks from the transmission lines at a receiver end is preferably included.

(p. 2, Office Action 1/20/04)

The Applicant respectfully submits, however, that amended claim 1 is not anticipated by

Widmer under 35 U.S.C. 102§(e).

Widmer discloses a transformation of parallel interface into coded format with preservation of baud-rate. According to Widmer, uncoded data blocks having a predetermined baud rate are demultiplexed to "sequentially distribute the data blocks to encoders, encoding the data blocks at the predetermined baud rate, and serializing the coded data blocks for serially transmitting data at the predetermined baud rate"(Widmer, Abstract).

Further, Widmer discloses that

> In still other methods, the step of adjusting transmission delay by a dynamically adjustable delay in each transmission link may be included. The step of retiming coded data blocks of each link with a dedicated adjustable clock, and the step of eliminating skew among the links by providing a second retiming of data transferred on the links at a rate less than the predetermined baud rate with a clock system shared by all links may be included.

(Widmer, col.2, lines 23-30, emphasis added).

> Specifically, Widmer discloses the adjusting transmission delay in the transmission link:

> The data output from the transmitter of FIG.1 may be launched on fiber optic or electromagnetic transmission lines (Links). At the high rates of this example, the signal distortion introduced by frequency dependent parameters of electromagnetic lines require compensation even for short links. This may be done with preemphasis at the transmitter or by compensation at the receiver. The preferred embodiment uses digital preemphasis techniques at the transmitter similar to those described in U.S. Pat. No. 3,980,826, to Widmer, entitled "Means for Predistorting Digital Signals", which describes the techniques for Manchester type coded signals with a run-length of at most two.

(Widmer, col.9, lines 41-53, emphasis added).

The Examiner stated that " Widmer teaches means wherein said adjusting of said phase relationship occurs at a transmitting end of said serial link in col.9, line 46..." Therefore, the Examiner has concluded that U.S. Pat. No. 3,980,826 teaches the claim element " adjusting a phase relationship at a transmitting end of a serial link". The Applicant has reviewed the teachings of U.S. Pat. No. 3,980,826 and respectfully disagree for the following reasons.

In fact, distortion at the transmitter site, according to U.S. Pat. No. 3,980,826, is minimized by

...<u>reducing the low frequency content of the signal</u>, which results in less phase shift error per unit distance. This is accomplished by distinguishing bits encoded at the lower frequency of the bifrequency encoded data and then <u>reducing the amplitude of the low frequency bits to a relatively small fraction of their initial amplitude during the latter portion of each of the bit periods.</u>

(Widmer, <u>U.S. Pat. No. 3,980,826</u>, see Abstract and Fig.4, emphasis added).

Thus, Widmer's digital preemphasis at the transmitter site reduces merely <u>the amplitude of the low frequency bits to a relatively small fraction of their initial amplitude</u> during the latter portion of each of the bit periods rather than <u>directly</u> adjusting <u>the phase</u> of the transmitting signals on the transmitter site of the link. That is, the prior art found by the Examiner only teaches the adjustment of amplitude at the transmitter site and not the adjustment of phase at the transmitter site. In addition, Widmer's digital preemphasis at the transmitter site is performed <u>to preclude</u> the signals from distortion over the transmission link in advance, <u>without measuring the actual phase relationship between signals at the receiver end of the link</u>.

Hence, Widmer does not disclose <u>measuring the skew</u> between the clock and data signals <u>at the receiving end</u> of the serial link <u>and adjusting phase relationship</u> of the transmitting data and clock signals <u>at a transmitting end</u> of the serial link <u>to reduce the</u> measured <u>skew</u> between the data and clock signals, as recited in amended claim 1:

> A method, comprising:
> (a) <u>measuring a skew</u> between a data signal and a clock signal <u>at a receiving end</u> of a serial link; and
> (b) <u>adjusting a phase relationship</u> between said data signal and said clock signal <u>to</u> <u>reduce said skew, wherein said adjusting of said phase relationship occurs at a transmitting end of said serial link</u>.

(Amended claim 1) (emphasis added)

Since Widmer does not set forth all the elements of amended claim 1, the Applicant respectfully submits that amended claim 1 is not anticipated by Widmer under 35 U.S.C. 102§(e).

Given that dependent claims 3-7 depend, directly or indirectly on claim 1, and add additional limitations, the Applicant respectfully submits that claims 3-7, are likewise, not anticipated by Widmer under 35 U.S.C. §102 (e).

Independent claims 8 and 17 contain substantially similar limitations to amended claim 1. Therefore, the Applicant respectfully submits that, as amended, claims 8 and 17, for at least the same reasons as mentioned above, are not anticipated by Widmer under 35 U.S.C. 102§(e).

Given that dependent claims 9-16 and 18-24 depend, directly or indirectly on claim 8 and 17, respectively, and add additional limitations, the Applicant respectfully submits that claims 9-16 and 18-24, are likewise, not anticipated by Widmer under 35 U.S.C. §102 (e).

In light of the comments above, the Applicant respectfully requests the allowance of all pending claims. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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Date: _____4/5/04_____   By: _____

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FIGURE 1

(Prior Art)

Approved @ 6/17/04